

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L6	455	703/8.ccls.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 18:30

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L3	1617	(280/5.5\$).ccls. and @ad<"20020101"	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 17:22
L4	0	(280/5.5\$).ccls. and @ad="20020101"	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 18:03
L5	486	(280/5.5\$).ccls. and @ad>"20020101"	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 18:03

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L13	2	(stewart adj platform and spring).clm.	US-PGPUB	OR	OFF	2008/05/16 19:36
L14	1	(parallel adj kinematic and spring).clm.	US-PGPUB	OR	OFF	2008/05/16 19:38
L15	2	(six near degree and spring).clm.	US-PGPUB	OR	OFF	2008/05/16 19:38
L16	1	(six near freedom and spring).clm.	US-PGPUB	OR	OFF	2008/05/16 19:38
L17	1	((six near freedom) and spring).clm.	US-PGPUB	OR	OFF	2008/05/16 19:40
L18	50	(six near degree\$1 and spring).clm.	US-PGPUB	OR	OFF	2008/05/16 19:40
L19	1	(six near freedom and spring\$1).clm.	US-PGPUB	OR	OFF	2008/05/16 19:43
L20	1	((six near freedom) and spring\$1).clm.	US-PGPUB	OR	OFF	2008/05/16 19:45
L21	47	((six near5 freedom) and spring\$1).clm.	US-PGPUB	OR	OFF	2008/05/16 19:45

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L4	576	(six near degree near freedom) and @ad<"20020101"	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 14:13
L5	89	L4 and (automobile or suspension or shock or damper)	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 14:13
L6	101	(stewart near platform) and @ad<"20020101"	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 14:26
L8	27	L6 and (automobile or suspension or shock or damper)	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 14:27

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L10	64	stewart adj platform and spring	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 19:15
L11	24	stewart adj platform and suspension	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 19:22
L12	96	parallel adj kinematic\$1 and @ad<"20020101"	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 19:24

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L24	535	(six near degree\$1 near freedom) and (automobile or suspension or damper) and @ad<"20020101"	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/16 19:50

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	3	(spring near design) and (parallel near mechanism) and @ad<"20020101"	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/18 15:28
L3	0	(spring near design) and (stewart near mechanism) and @ad<"20020101"	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/18 15:29
L4	0	(spring near design) and (stewart near platform) and @ad<"20020101"	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/18 15:29

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	66	(hydraulic same actuator) same (force near sensor) and @ad<"20020101"	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2008/05/18 17:00





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"stewart platform" spring suspension

1970

- 2001

[Search](#)

[Ad](#)  
[Sc](#)  
[Sc](#)

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[A six degree-of-freedom wrist with pneumatic suspension](#)

SE Salcudean, S Bachmann, D Ben-Dov - Robotics and Automation, 1994. Proceedings., 1994 IEEE ..., 1994 - [ieeexplore.ieee.org](#)

... of using them in a con- ventional **Stewart platform** arrangement ... mm (0.25 in) | | Bellows

**Spring** Rate I ... hystere- sis in the mechanism is the flexural **suspension**. ...

[Cited by 4](#) - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[A study of the effects of the lower index methods on ADAMS sparse tableau formulation for the ... - all 4 versions »](#)

NV Orlandea - Proceedings of the Institution of Mechanical Engineers, Part ..., 1999 - [journals.pepublishing.com](#)

... The **suspension** has a **spring** and a damper not shown in Fig. 8 for reason of clarity.

As before, for this system the violation of the constraint Fig. ...

[Cited by 4](#) - [Related Articles](#) - [Web Search](#)

[\[PS\] Development of the NIST Robot Crane Teleoperation Controller - all 2 versions »](#)

NG Dagalakis, JS Albus, RV Bostelman, J Fiala - Robotics and Remote Handling Proceedings, Fifth Topical ..., 1993 - [isd.mel.nist.gov](#)

... joystick was another small size **Stewart platform** mechanism shown in ... applied to a

steel leaf **spring** plate mounted ... the coordinates of the **suspension** points, with ...

[Cited by 5](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

[Design analysis of a Stewart platform for vehicle emulator systems](#)

Y Gong - 1992 - [dspace.mit.edu](#)

... geometric parameters of **Stewart platform** due to imperfect assembly and ... For

VES to simulate more general base system, eg, the **suspension** ...

[Cited by 1](#) - [Related Articles](#) - [Web Search](#)

[\[PDF\] Applications of the NIST RoboCrane - all 3 versions »](#)

R Bostelman, J Albus, N Dagalakis, A Jacoff, J ... - Proceedings of the 5th International Symposium on Robotics ..., 1994 - [isd.mel.nist.gov](#)

... tubular gantry, containing three upper **suspension** points for ... **Stewart Platform** Joystick

Figure 2 - Robocrane Control System ... plate that acted as a leaf-**spring**. ...

[Cited by 20](#) - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

[\[CITATION\] THE DESIGN AND IMPLEMENTATION OF A LABORATORY TEST BED FOR SPACE ROBOTICS: THE VES MOD II Steven ...](#)

U Muller, I Paul, M Cambridge, J Pennington, AT ... - Robotics: Kinematics, Dynamics and Controls: Presented at ..., 1994 - American Society of Mechanical Engineers

[Related Articles](#) - [Web Search](#)

[Experimental Simulation of Manipulator Base Compliance - all 7 versions »](#)

H West, N Hootsmans, S Dubowsky, N Stelman - Proceedings of the First International Symposium on ..., 1989 - Springer

... **Stewart Platform** ...; ... The model used by the emulator was for a vehicle whose **suspension** consisted of a combination of **springs** and dampers. ...

[Cited by 13](#) - [Related Articles](#) - [Web Search](#)



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"stewart platform" spring automobile

1970

- 2001

Ad  
Sc  
Sc

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### Modeling, simulation, and control of a hydraulic **Stewart platform**

D Li, SE Salcudean - Robotics and Automation, 1997. Proceedings., 1997 IEEE ..., 1997 - [ieeexplore.ieee.org](#)  
... control of the **Stewart platform** based vehicle emulation system ... For the **Stewart platform** considered here, the mass of ... fric- tion), K is the **spring** constant of ...

Cited by 39 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

### Experimental study of motion control and trajectory planning for aStewart Platform robot manipulator

CC Nguyen, SS Antrazi, ZL Zhou, CE Campbell Jr - Robotics and Automation, 1991. Proceedings., 1991 IEEE ..., 1991 - [ieeexplore.ieee.org](#)

... Six **spring**-loaded pistons arranged also in a geometry similar to the **Stewart Platform** mech- anism are used to suspend the lower compliant plat- form from the ...

Cited by 13 - [Related Articles](#) - [Web Search](#)

### Development of the PNU vehicle driving simulator and its performance evaluation - all 2 versions »

MK Park, MC Lee, KS Yoo, K Son, WS Yoo, MC Han - Robotics and Automation, 2001. Proceedings 2001 ICRA. IEEE ..., 2001 - [ieeexplore.ieee.org](#)

... Simulator Studies: The Influence of Vehicle Parameters on ... [9] E. F. Fichter, "A **Stewart Platform**-based Manipulator ... of the KSME 1998 **Spring** Annual Meeting A, ...

Cited by 7 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

### Force guided assemblies using a novel parallel manipulator - all 3 versions »

DM Morris, R Hebbar, WS Newman - Robotics and Automation, 2001. Proceedings 2001 ICRA. IEEE ..., 2001 - [ieeexplore.ieee.org](#)

... four assembly examples from **automotive** automatic transmissions ... Research, Vol6, No 1, **Spring** 1987, pp 3 ... Arai, T., "A Modified **Stewart Platform** Manipulator with ...

Cited by 8 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

### **Stewart-platform**-based inlet duct painting system

K Liu, R Glenn, TJ Lawley, FL Lewis - Robotics and Automation, 1993. Proceedings., 1993 IEEE ..., 1993 - [ieeexplore.ieee.org](#)

... 93 \$3.00 © 1993 IEEE 106 **Stewart-Platform**-Based Inlet ... MORGER is an autonomous three wheeled vehicle capable of ... a rather ingenious design of **springs** and levers ...

Cited by 3 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

### KAIST interactive bicycle simulator - all 13 versions »

DS Kwon, GH Yang, CW Lee, JC Shin, Y Park, B Jung, ... - Robotics and Automation, 2001. Proceedings 2001 ICRA. IEEE ..., 2001 - [ieeexplore.ieee.org](#)

... processors for digital servo control of the **Stewart platform** have been ... the bicycle is a two-wheeled vehicle, it can ... we model the tire as a **spring**-damper system ...

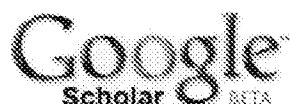
Cited by 21 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

### Design analysis of a **Stewart platform** for vehicle emulator systems

Y Gong - 1992 - [dspace.mit.edu](#)

... ti' r '4' < ,t;tr : I- STITUTE F:B 0o 199 UtjRAIE5 ARC·JI ,,: Page 2. DESIGN ANALYSIS OF A **STEWART PLATFORM** FOR VEHICLE EMULATOR SYSTEMS by YOUHONG GONG ...

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"stewart platform" spring design

1970

- 2001

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**Design and control of a simplified Stewart platform for endoscopy - all 3 versions »**

JM Wendlandt, SS Sastry - Decision and Control, 1994., Proceedings of the 33rd IEEE ..., 1994 -  
ieeexplore.ieee.org

... The **design** shares simi- larities with the **Stewart Platform** but has ... do not need the  
full motion of the **Stewart platform**. ... by rigid tubes and a **spring**-like device ...

Cited by 14 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

**Design and development of a Stewart platform based force-torque sensor - all 2 versions »**

TA Dwarakanath, B Dasgupta, TS Mruthyunjaya - Mechatronics, 2001 - Elsevier

... analysed a similar structure and enumerated a few **design** criteria for the sensor  
structure. The concept of a passive **Stewart platform** with **spring** loaded legs ...

Cited by 21 - [Related Articles](#) - [Web Search](#)

**The Stewart platform manipulator: a review - all 4 versions »**

B Dasgupta, TS Mruthyunjaya - Mechanism and Machine Theory, 2000 - Elsevier

... analysed a similar structure and enumerated a few **design** criteria for the sensor  
structure. The concept of a passive **Stewart platform** with **spring**-loaded legs ...

Cited by 181 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

**Dynamic analysis and control of a Stewart platform manipulator - all 3 versions »**

G Lbret, K Liu, FL Lewis - J ROB SYST, 1993 - doi.wiley.com

Page 1. Dynamic Analysis and Control of a **Stewart Platform** Manipulator ... In this article,  
we study the dynamic equations of the **Stewart platform** manipulator. ...

Cited by 99 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

**Closed-form force sensing of a 6-axis force transducer based on the Stewart platform - all 3 versions »**

CG Kang - Sensors & Actuators: A. Physical, 2001 - Elsevier

... Let the **spring** constant of **springs** mounted on the legs to be 87.5 N/mm, and the  
maximum ... The **design** parameters of the **Stewart platform** were selected in ...

Cited by 23 - [Related Articles](#) - [Web Search](#)

**Modeling, simulation, and control of a hydraulic Stewart platform**

D Li, SE Salcudean - Robotics and Automation, 1997. Proceedings., 1997 IEEE ..., 1997 - ieeexplore.ieee.org

... For the **Stewart platform** considered here, the mass of the six legs is considerably ...  
coefficient (normally piston seal fric- tion), K is the **spring** constant of ...

Cited by 39 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

**A six degree of freedom micromanipulator for ophthalmic surgery**

KW Grace, JE Colgate, MR Glucksberg, JH Chun - Robotics and Automation, 1993. Proceedings., 1993 IEEE ...,  
1993 - ieeexplore.ieee.org

... the physical **design** of a **Stewart Platform** can be divided into two classes: (I) legs  
either pull or push against an antagonistic force (ie a **spring** pushes the ...

Cited by 57 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

**Genetic design of kinematically optimal fine tuning Stewart platform for large spherical radio**

... - all 2 versions »



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"stewart platform" "spring design"

1970

- 2001

Ad  
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Tip: Try removing quotes from your search to get more results.

[Geometric Analysis of Antagonistic Stiffness in Redundantly Actuated Parallel Mechanisms - all 3 versions »](#)

RA Freeman - Journal of Robotic Systems, 1993 - doi.wiley.com

... Hogan2' modeled equilibrated axes consisting of passive springs and discussed the concept of open-loop disturbance rejection and nonlin- ear **spring design**. ...

Cited by 22 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[Static balancing of 3-DOF planar parallel mechanisms - all 3 versions »](#)

T Laliberte, CM Gosselin, M Jean - Mechatronics, IEEE/ASME Transactions on, 1999 - ieeexplore.ieee.org

Page 1. IEEE/ASME TRANSACTIONS ON MECHATRONICS, VOL. 4, NO. 4, DECEMBER 1999

363 Static Balancing of 3-DOF Planar Parallel Mechanisms ...

Cited by 20 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[BOOK] [Robotics and Manufacturing: Recent Trends in Research, Education, and Applications: Proceedings of ...](#)

M Jamshidi - 1992 - Amer Society of Mechanical

[Web Search](#)

[PDF] [Development and demonstration of a teleoperated modular robot system. Bi-monthly progress report, ... - all 2 versions »](#)

S Tosunoglu, D Tesar - 1992 - osti.gov

... architecture for active **spring design**. ... A redundantly actuated **Stewart platform**-type manipulator has been studied as an illustrative example. ...

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S Tosunoglu, D Tesar - 1992 - osti.gov

... architecture for active **spring design**. ... A redundantly actuated **Stewart platform**-type manipulator has been studied as an illustrative example. ...

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[BOOK] [Fundamentals of Robotics](#)

DD Ardayio - 1987 - books.google.com

... **Spring Design** with an IBM PC, by Al Dietrich Mechanical Design Failure Analysis: With Failure Analysis System ... **Stewart Platform** Based on Regular Octahedron ...

Cited by 10 - [Related Articles](#) - [Web Search](#)

[CITATION] [TOWARD AUTOMATION OF PATIENT-SPECIFIC FINITE ELEMENT MODELS FOR BONE GRAFTING OF FEMORAL HEAD ...](#)

MJ Rudert, TD Brown - Advances in Bioengineering, 1971 - American Institute of Chemical Engineers

[Web Search](#) - [BL Direct](#)

[CITATION] [A Simplified Multi-Input Multi-Output Formulation for the Quantitative Feedback Theory](#)

Y Chait - Journal of Dynamic Systems, Measurement, and Control, 1971 - American Society of Mechanical Engineers



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Geometric analysis of antagonistic stiffness in 1970 - 2001

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RA Freeman - Robotics and Manufacturing: Recent Trends in Research, ..., 1992 - Amer Society of Mechanical  
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**Analysis for a planar 3 degree-of-freedom parallel mechanism with actively adjustable stiffness ...**

WK Kim, JY Lee, BJ Yi - Robotics and Automation, 1997. Proceedings., 1997 IEEE ..., 1997 - [ieeexplore.ieee.org](#)  
... approach, it is achieved by **antagonistic** redundant actuation ... first- and second-order  
kinematic **analysis** for the ... the compliance matrix, the **stiffness** matrix in ...  
[Web Search](#)

**Optimization of the antagonistic stiffness characteristic of a five-bar mechanism with redundant ...**

SH Lee, BJ Yi, SH Kim, YK Kwak - Intelligent Robots and Systems, 1999. IROS'99. Proceedings. ..., 1999 -  
[ieeexplore.ieee.org](#)  
... The **redundantly actuated** system can produce proper internal ... with complex nonlinear  
**geometry** of the ... The **antagonistic stiffness** can be modulated arbitrarily by ...  
[Related Articles](#) - [Web Search](#)

**Analysis of a 5-bar finger mechanism having redundant actuators with applications to stiffness and ...**

BJ Yi, IH Suh, SR Oh - Robotics and Automation, 1997. Proceedings., 1997 IEEE ..., 1997 - [ieeexplore.ieee.org](#)  
... **Analysis of A 5-bar Finger Mechanism Having ...** system to modulate the end-point **stiffness**  
or motion ... via internal loads in **redundantly actuated** closed chain systems ...  
[Web Search](#)

**Frequency modulation in anthropomorphic robots with kinematic and force redundancies**

BJ Yi, SR Oh, IH Suh, WK Kim - Robotics and Automation, 1998. Proceedings. 1998 IEEE ..., 1998 -  
[ieeexplore.ieee.org](#)  
... impedance property comes from the **antagonistic** activation of ... to deal with our further  
**analysis** of the ... of  $F_d$  remains constant, the effective **stiffness** matrix  $[K ...$   
[Related Articles](#) - [Web Search](#)

**Feedforward modulation of dynamic behaviour in anthropomorphic robots via force redundancies - all 2 versions »**

BJ Yi, JH Lee - Robotics and Automation, 1999. Proceedings. 1999 IEEE ..., 1999 - [ieeexplore.ieee.org](#)  
... **analysis** and design of **redundantly actuated** linkage systems [2 ... restricted to modulation  
and **analysis** of **stiffness** ... system to modulate the **stiffness** property or ...  
[Related Articles](#) - [Web Search](#) - [BL Direct](#)

[CITATION] **Byung-Ju Yi and Whee Kuk Kim**

ASP MANIPULATOR - Mobile Robot Technology: A Proceedings Volume from the IFAC ..., 2001 - Pergamon  
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"parallel mechanism" spring design

1970

- 2001

Ad  
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[Static balancing of 3-DOF planar parallel mechanisms - all 3 versions »](#)

T Laliberte, CM Gosselin, M Jean - Mechatronics, IEEE/ASME Transactions on, 1999 - [ieeexplore.ieee.org](#)

... of the Mechanisms For each type of planar **parallel mechanism** introduced in ... and for the mechanisms with **springs**—can be thought of as the **design** space, in ...

Cited by 20 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[Design, analysis, and control of a low power joint for walking robots, by phasic activation of ... - all 3 versions »](#)

RQ van der Linde - Robotics and Automation, IEEE Transactions on, 1999 - [ieeexplore.ieee.org](#)

... **Design** Automat., vol ... Y.Imamura, "An instrumented compliant wrist using a **parallel mechanism**," Proc ... 17, T. A.McMahon, "**Spring**-like properties of muscles and ...

Cited by 41 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[Geometric Analysis of Antagonistic Stiffness in Redundantly Actuated Parallel Mechanisms - all 3 versions »](#)

RA Freeman - Journal of Robotic Systems, 1993 - [doi.wiley.com](#)

... disturbance rejection and nonlin- ear **spring design**. ... antagonism generated from preloaded passive **springs**. ... of a "fully **parallel**" mechanism consisting of R, N ...

Cited by 22 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[\[CITATION\] Eclipse: An overactuated parallel mechanism for rapid machining](#)

SJ Ryu, JW Kim, JC Hwang, C Park, HS Cho, K Lee, Y ... - 1998 ASME International Mechanical Engineering Congress and ... , 1998

Cited by 31 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[Virtual model control of a bipedal walking robot - all 15 versions »](#)

J Pratt, P Dilworth, G Pratt - Robotics and Automation, 1997. Proceedings., 1997 IEEE ... , 1997 - [ieeexplore.ieee.org](#)

... for each serial link of this **parallel mechanism** in the ... third constraint provides us with a **design** de- gree ... Figure 3: **Spring Turkey**, our bipedal walking robot. ...

Cited by 124 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[Static Balancing of Spatial Parallel Platform Mechanisms—Revisited - all 2 versions »](#)

I Ebert-Uphoff, CM Gosselin, T Laliberté - Journal of Mechanical Design, 2000 - [link.aip.org](#)

... recently been introduced to the **design** of robotic ... Kumar discuss the use of **springs** for gravity ... balancing of a planar **parallel mechanism** using counterweights or ...

Cited by 16 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[On the design of gravity-compensated six-degree-of-freedom parallel mechanisms](#)

CM Gosselin, J Wang - Robotics and Automation, 1998. Proceedings. 1998 IEEE ... , 1998 - [ieeexplore.ieee.org](#)

... a more general perspective, the **design** of a ... which is statically balanced using **springs** will be ... spatial six-degree-of- freedom **parallel mechanism** with revolute ...

Cited by 10 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[\[PDF\] Design and evaluation of a high-performance haptic interface - all 6 versions »](#)

RE Ellis, OM Ismaeil, MG Lipsett - Robotica, 1996 - [cs.queensu.ca](#)

... possible to produce a fully **parallel mechanism** with six ... force measurements indicated



[Web](#) [Images](#) [Video](#) [News](#) [Maps](#) [more »](#)

"parallel mechanism" "spring design"

1970

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[Static balancing of 3-DOF planar parallel mechanisms - all 3 versions »](#)

T Laliberte, CM Gosselin, M Jean - Mechatronics, IEEE/ASME Transactions on, 1999 - [ieeexplore.ieee.org](#)

... Index Terms—Dynamics, **parallel mechanism**, static balancing. ... A. Eight-Bar

Mechanism A planar 3-DOF **parallel mechanism** is shown in Fig. ...

Cited by 20 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[Geometric Analysis of Antagonistic Stiffness in Redundantly Actuated Parallel Mechanisms - all 3 versions »](#)

RA Freeman - Journal of Robotic Systems, 1993 - [doi.wiley.com](#)

... the concept of open-loop disturbance rejection and nonlin- ear **spring design**. ... is illustrated here in terms of a "fully **parallel**" **mechanism** consisting of R ...

Cited by 22 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[Elastic actuator for precise force control - all 3 versions »](#)

GA Pratt, MM Williamson - US Patent 5,650,704, 1997 - [freepatentsonline.com](#)

... et al., "An instrumented compliant wrist using a **parallel mechanism**," Japan/USA ... springs are too efficient, ie, a given cylindrical **spring design** that attains a ...

Cited by 6 - [Related Articles](#) - [Cached](#) - [Web Search](#)

[CITATION] **ACTIVE SPRING DESIGN VIA REDUNDANTLY ACTUATED PARALLEL MECHANISMS**

RA Freeman - Robotics and Manufacturing: Recent Trends in Research, ..., 1992 - Amer Society of Mechanical

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[Design of multi-degree-of-freedom spring mechanisms: biomimetic approach](#)

BJ Yi, JH Lee, WK Kim, IH Suh - Intelligent Robots and Systems, 2000.(IROS 2000). ..., 2000 - [ieeexplore.ieee.org](#)

... In the above five categories, previous **spring design** has been task-specific with the systems unable to actively control (adjust) the spring rate independent of ...

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S Tosunoglu, D Tesar - 1992 - [osti.gov](#)

... springs. Initially, a planar **parallel mechanism** is employed to simulate the spring behavior by redundant actuation. ... architecture for active **spring design**. ...

[View as HTML](#) - [Web Search](#)

[Simultaneous stiffness generation and internal load distribution in redundantly actuated mechanisms](#)

BJ Yi, RA Freeman - Advanced Robotics, 1991. Robots in Unstructured Environments ..., 1991 - [ieeexplore.ieee.org](#)

... the concept of open-loop disturbance rejection and nonlinear **spring design**. ... 4] designed an active wrist, which has a **parallel mechanism** structure composed of ...

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Static balancing of 3-DOF planar **parallel** mechanisms - all 3 versions »

T Laliberte, CM Gosselin, M Jean - Mechatronics, IEEE/ASME Transactions on, 1999 - [ieeexplore.ieee.org](#)

... Index Terms—Dynamics, **parallel mechanism**, static balancing. ... A. Eight-Bar

**Mechanism** A planar 3-DOF **parallel mechanism** is shown in Fig. ...

Cited by 20 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Geometric Analysis of Antagonistic Stiffness in Redundantly Actuated **Parallel** Mechanisms - all 3 versions »

RA Freeman - Journal of Robotic Systems, 1993 - [doi.wiley.com](#)

... the concept of open-loop disturbance rejection and nonlinear **spring design**. ... of a kinematic modeling methodology for general serial and **parallel mechanisms**. ...

Cited by 22 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Design, fabrication, and real-time neural network control of a three-degrees-of-freedom ... - all 5 versions »

SS Ku, U Pinsopon, S Cetinkunt, S Nakajima - Mechatronics, IEEE/ASME Transactions on, 2000 - [ieeexplore.ieee.org](#)

... consisting of a pair of **parallel** springs where 2 ... is designed as a leaf-spring **mechanism** (Fig. ... is converted to tool displacement through a leaf-spring design. ...

Cited by 33 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

[PDF] Learning by single function agents during **spring design** - all 2 versions »

DL Grecu, DC Brown - Artificial Intelligence in Design, 1996 - [cs.wpi.edu](#)

... of material selection in **Spring design** is described ... **Parallel** decompositions allow opportunistic collaboration ... Although a scheduling **mechanism** is required for ...

Cited by 24 - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

Agent-Based Synthesis of Electromechanical Design Configurations - all 6 versions »

MI Campbell, J Cagan, K Kotovsky - Journal of Mechanical Design, 2000 - [link.aip.org](#)

... to connect embodiments in **parallel** or series. ... the design evaluation **mechanism**, design sorter ... Function Agents During **Spring Design**, Artificial Intelligence in ...

Cited by 50 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

Limited slip differential recessed **spring design** - all 2 versions »

JH Tanser, G Korol, JP Walsh... - US Patent 5,741,199, 1998 - [freepatentsonline.com](#)

Title: Limited slip differential recessed **spring design**. Document Type ... 475/235, DIFFERENTIAL MECHANISM. ... Belleville springs could have **parallel** abutting conical ...

Cited by 9 - [Related Articles](#) - [Cached](#) - [Web Search](#)

A prototype scanning stylus profilometer for rapid measurement of small surface areas - all 3 versions »

E Morrison - International Journal of Machine Tools and Manufacture, 1995 - Elsevier

... particularly in relation to the flexure **spring design** used on ... a flexure spring based traverse **mechanism** was designed ... pick-up in the x direction (**parallel** to the ...

Cited by 9 - [Related Articles](#) - [Web Search](#) - [BL Direct](#)

The spring-and-lever balancing **mechanism**. George Carwardine and the Anglepoise lamp -